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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/742,893	12/23/2003	Eliav Zipper	P-6224-US	7095
49444	7590	04/18/2006	EXAMINER	
PEARL COHEN ZEDEK LATZER, LLP 1500 BROADWAY, 12TH FLOOR NEW YORK, NY 10036			NGUYEN, DUC M	
			ART UNIT	PAPER NUMBER
			2618	

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/742,893	ZIPPER, ELIAV	
	Examiner Duc M. Nguyen	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-30 is/are pending in the application.
 - 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-30 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____ .	6) <input type="checkbox"/> Other: ____ .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 15-20, 22-23 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by **Ahmed** (US Pat. Number 6,870,435).

It has been held that the recitation that an element is “able to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

3. Claims 1-2, 8-11, 15-16, 21-23, 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by **Holden** (US Pat. Number 6,411,655).

Regarding claims 1, 10, 15, **Holden** discloses an apparatus comprising:
a transmitter able to control a sign of a bi-polar base band amplitude signal based on at least one predetermined criterion related to an input signal of the transmitter (see Fig. 1, 5C and col. 7, line 58 – col. 8, line 38)

Regarding claims 2, 11, 16, **Holden** discloses said transmitter is able to generate an output signal by combining said bi-polar baseband amplitude signal with a phase modulated signal (see Fig. 1, 5C and col. 7, line 58 – col. 8, line 38).

Regarding claims **8, 21**, **Holden** discloses a mixer as claimed (see Fig. 5C regarding mixer 123).

Regarding claim **9**, **Holden** discloses a power amplifier as claimed (see Fig. 5C regarding amplifier 121).

Regarding claim **22**, the claim is rejected for the same reason as set forth in claim 1 above. In addition, it is clear that the system in Holden would inherently comprise at least another communication station for receiving the transmitted signal.

Regarding claim **23**, the claim is rejected for the same reason as set forth in claim 2 above.

Regarding claim **25**, the claim is rejected for the same reason as set forth in claim 8 above.

Regarding claim **26**, the claim is rejected for the same reason as set forth in claim 1 above. In addition, it is clear that the DSP in Holden would inherently comprise a storage medium with instructions as claimed.

Regarding claim **27**, the claim is rejected for the same reason as set forth in claim 2 above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims **3-7, 12-14, 17-20, 24, 28-30** are rejected under 35 U.S.C. 103(a) as being unpatentable by **Holden**.

Regarding claims **3, 17, 24**, since integrating a DSP at a base-band processor is well known in the art, one skilled in the art would recognize that the DSP in **Holden** would obviously be located at the base-band processor in order to provide said bi-polar baseband signal to the modulator 123 in Fig. 5C (see Figs. 1, 5C and col. 7, line 58 – col. 8, line 38).

Regarding claims **4, 12, 18, 28**, since **Holden** discloses the bipolar amplitude control is based on the criterion in that a complex vector trajectory passes close to the origin (see col. 7, lines 58-60), it is clear that the DSP in **Holden** would obviously be able to determine whether said input signal approaches a zero-crossing (point of origin), and to invert the sign of said bi-polar amplitude signal if said input signal approaches a zero-crossing. Therefore, the claimed limitations are made obvious by **Holden** for determining whether an input signal approaches a zero-crossing.

Regarding claims **5-6, 13-14, 19-20, 29-30**, since **Holden** discloses the bipolar amplitude control is based on the criterion in that a complex vector trajectory passes close to the origin (see col. 7, lines 58-60), one skilled in the art would recognize such criterion can be realized by determining whether said input signal is within a domain proximal to the origin of a predefined complex plane, or by determining whether a distance between a value related to said input signal is closer to said origin than a predetermined fraction of a maximal signal amplitude. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify **Holden** for

determining a distance value as claimed, as an alternative way of determining whether a complex vector trajectory passes close to the origin as mentioned by Holden.

Regarding claim 7, the claim is rejected for the same reason as set forth in claim 3 above. In addition, **Holden** discloses a phase modulator as claimed (see Fig. 1, regarding phase modulator 11).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US006359506B1 to Camp, Jr. et al,

US006751265B1 to Schell et al,

US006449465B1 to Gailus et al,

US006590940B1 to Camp, Jr. et al,

US006690233B2 to Sander,

US006181199B1 to Camp et al.

7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300 (for **formal** communications intended for entry)

(571)-273-7893 (for informal or **draft** communications).

Hand-delivered responses should be brought to Customer Service Window,
Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry concerning this communication or communications from the examiner
should be directed to Duc M. Nguyen whose telephone number is (571) 272-7893,
Monday-Thursday (9:00 AM - 5:00 PM).

Or to Matthew Anderson (Supervisor) whose telephone number is (571) 272-
4177.

Duc M. Nguyen, P.E.
Apr 8, 2006

A handwritten signature in black ink, appearing to read "Duc M. Nguyen".